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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,461	05/06/2004	Chi-Ming Hsiao	MTKP0067USA1	3460
27765	7590	05/20/2005	EXAMINER	
NORTH AMERICA INTERNATIONAL PATENT OFFICE (NAIPC)			LAM, TUAN THIEU	
P.O. BOX 506			ART UNIT	
MERRIFIELD, VA 22116			PAPER NUMBER	
			2816	

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/709,461

Applicant(s)

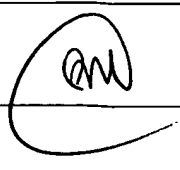
HSIAO ET AL.

Examiner

Tuan T. Lam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,11,12 and 16 is/are rejected.
- 7) ☒ Claim(s) 3-5,7-10,13-15 and 17-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This is a response to the amendment filed 4/15/2005. Claims 1-20 are pending and are under examination.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 6, 11-12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's cited prior art figures 1-3 in view of Carroll (USP 5,130,571).

Applicant's cited prior art figure 1 shows an oscillator circuit (10) comprising a plurality of switched capacitor circuits (16). Each switched capacitor circuit (shown in figure 2) comprises a single switch transistor (32) and a capacitor (30). The single switch transistor selectively coupled a positive side first node (A) to a positive side second node (OSC\_N) depending upon a control signal (SW).

Applicant's cited prior art switched capacitor circuit figure 2 shows a single switch transistor instead of a plurality of differently sized switch transistors sequentially switched off with a smallest switch transistor being switched off last as called for in claims 1-2 and 11-12.

Figure 4 of Carroll reference discloses a switched capacitor circuit having a plurality of differently sized switch transistors (T24, T22, column 3, lines 1-5). The transistors are sequentially switched off with the smallest (T22) being switched off last to obtain a fast acquisition while maintaining a low offset voltage. Therefore, it would have been obvious to a

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person skilled in the art at the time the invention was made to replace applicant's single switch transistor shown in figure 2 with plurality of differently sized switch transistors sequentially switched off with a smallest switch transistor being switched off last for the purpose of increasing speed with a minimal offset voltage.

Regarding claims 6 and 16, applicant's cited prior art figure 3 shows positive and negative side switch capacitor circuits (42, 46). Each switched capacitor circuit (shown in figure 2) comprises a single switch transistor (32) and a capacitor (30). The single switch transistor selectively coupled a positive/negative side first node to a positive/negative side second node depending upon a control signal (SW). Applicant's cited prior art switched capacitor circuit figure 2 shows a single switch transistor instead of a plurality of differently sized switch transistors sequentially switched off with a smallest switch transistor being switched off last as called for in claims 6 and 16.

Figure 4 of Carroll reference discloses a switched capacitor circuit having a plurality of differently sized switch transistors (T24, T22, column 3, lines 1-5). The transistors are sequentially switched off with the smallest (T22) being switched off last to obtain a fast acquisition while maintaining a low offset voltage. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to replace applicant's single switch transistor shown in figure 2 with plurality of differently sized switch transistors sequentially switched off with a smallest switch transistor being switched off last for the purpose of increasing speed with a minimal offset voltage.

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*Allowable Subject Matter*

3. Claims 3-5, 7-10, 13-15 and 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Lam whose telephone number is 571-272-1744. The examiner can normally be reached on Monday to Friday (7:30 am to 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIMOTHY P. CALLAHAN can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tuan T. Lam  
Primary Examiner  
Art Unit 2816

5/18/2005